REMARKS/ARGUMENTS

This Amendment represents a submission to accompany a Request for Continued Examination (RCE) filed herewith. This Amendment and associated RCE are submitted within the two month period following the Notice of Appeal filed on August 8, 2005.

5 Please note that because October 8, 2005, fell on a Saturday, and because Monday, October 10, 2005, was a Federal holiday, the two month period following the Notice of Appeal extends to October 11, 2005. The current status of the claims is summarized below.

Claims 1, 4, 6-7, 9, 13, 26, and 39 are currently amended.

10 Claims 21-24 and 34-37 are cancelled.

Claims 1-20, 25-33, and 38-40 are pending following entry of this Amendment.

Rejections under 35 U.S.C. 102

Claims 1-40 were rejected under 35 U.S.C. 102(b) as being anticipated by Jain et

15 al. ("Jain" hereafter) (U.S. Patent No. 5,675,742). These rejections are respectfully traversed.

With regard to amended claim 1, Jain does not teach marking data during data transfer as claimed. More specifically, Jain does not teach the following:

determining a fraction of an input buffer of the routing mechanism that is filled,

20 generating a random number between zero and one, and

marking the data packet to indicate data transfer congestion if the generated random number is less than or equal to the fraction of the routing mechanism input buffer that is filled.

In contrast to the above-identified features of amended claim 1, Jain teaches a

25 feedback algorithm to determine whether the rate at which packets are being received

exceeds a knee capacity of the router. The knee capacity of the router refers to the load

level at which demand on the router begins to approach the service rate of the router. As

part of the feedback algorithm, Jain teaches determining a queue length, wherein the

queue length is defined as the number of packets that are stored in the buffers waiting to

5   be processed by the router (plus any packet that is being processed by the router). It

should be appreciated that while the queue length of Jain is associated with a content of

an input buffer of a routing mechanism, the queue length of Jain is not equivalent to the

fraction of the input buffer of the routing mechanism that is filled. Rather, the queue

length of Jain refers to the actual number of items stored in the input buffer of the router.

10   The feedback algorithm of Jain continues with calculating an average queue

length and comparing the calculated average queue length to a preselected threshold

length. If the average queue length exceeds the preselected threshold length, Jain teaches

that a feedback selection function is invoked. The feedback selection function of Jain

identifies specific source-destination (S-D) pairs whose packets transmission rates

15   through the router should be reduced and sets the congestion avoidance flag in all packets

associated with those S-D pairs.

The present invention as recited in claim 1 differs significantly from the feedback

selection function of Jain. More specifically, claim 1 includes a feature of generating a

random number between zero and one. Then, according to claim 1, the data packet is

20   marked to indicate data transfer congestion if the generated random number is less than or

equal to the fraction of the routing mechanism input buffer that is filled. Jain does not

include any teaching regarding generation of a random number. Additionally, Jain does

not include any teaching regarding marking of a data packet to indicate data transfer

congestion based on comparison of the generated random number to the fraction of the

25   routing mechanism input buffer that is filled.

Furthermore, with regard to amended claim 1, Jain does not teach increasing the data transfer rate in direction correlation to a lack of data transfer congestion as indicated by unmarked data during a round trip time. More specifically, Jain does not teach correlation of a data packet transmission rate adjustment to a data packet round trip time.

5   For at least the reasons discussed above, Jain does not teach each and every feature of claim 1, as required to support an anticipation rejection under 35 U.S.C. 102. Therefore, the Applicant submits that amended claim 1 is patentable over Jain. Also, because each of dependent claims 2-12 incorporates each feature of amended claim 1, each of claims 2-12 is patentable for at least the same reasons provided for amended

10   claim 1. Thus, the Office is requested to withdraw the rejections of claims 1-12.

With respect to claim 13, Jain does not teach a sending switch that includes code for marking a packet to be sent by the sending switch with a congestion indicator if a randomly generated value (between zero and one) is less than or equal to the capacity level of the input buffer, wherein the capacity level of the input buffer corresponds to a

15   fraction of the input buffer that is filled. Additionally, Jain does not teach a sending switch that includes code for leaving a packet to be sent by the sending switch unmarked with respect to the congestion indicator if a randomly generated value (between zero and one) is greater than the capacity level of the input buffer.

Based at least on the foregoing, the Applicant submits that Jain does not teach

20   each and every feature of claim 13, as required to support an anticipation rejection under 35 U.S.C. 102. Therefore, the Applicant submits that amended claim 13 is patentable over Jain. Also, because each of dependent claims 14-20 and 25 incorporates each feature of amended claim 13, each of claims 14-20 and 25 is patentable for at least the same reasons provided for amended claim 13. Thus, the Office is requested to withdraw the

rejections of claims 13-20 and 25. Also, the Office is requested to note that claims 21-24 have been cancelled.

Claims 26 and 39 have been amended to clarify that the capacity level is equal to a fraction of the input buffer that is filled and that the probability factor is set as a multiple

5   of the capacity level. Also, amended claims 26 and 39 now recite generating a random value between zero and one, and marking the data packet with a congestion indicator if the randomly generated value is less than or equal to the probability factor, and otherwise leaving the data packet unmarked.

Jain does not teach setting a probability factor as a multiple of a capacity level of

10   the input buffer, wherein the capacity level corresponds to a fraction of the input buffer that is filled. Also, Jain does not teach marking the data packet with a congestion indicator if a randomly generated value (between zero and one) is less than or equal to the probability factor, and otherwise leaving the data packet unmarked.

For at least the above-identified reasons, Jain does not teach each and every

15   feature of each of claims 26 and 39 as required to support an anticipation rejection under 35 U.S.C. 102. Therefore, the Applicant submits that amended claims 26 and 29 are patentable over Jain. Also, because each of dependent claims 27-33 and 38 incorporates each feature of amended claim 26, each of claims 27-33 and 38 is patentable for at least the same reasons provided for amended claim 26. Also, because dependent claim 40

20   incorporates each feature of amended claim 39, claim 40 is patentable for at least the same reasons provided for amended claim 39. Thus, the Office is requested to withdraw the rejections of claims 26-33 and 38-40. Also, the Office is requested to note that claims 34-37 have been cancelled.

The Applicant submits that all of the pending claims are in condition for

25   allowance. Therefore, a Notice of Allowance is requested. If the Examiner has any

questions concerning the present Amendment, the Examiner is requested to contact the

undersigned at (408) 774-6914. If any additional fees are due in connection with filing

this Amendment, the Commissioner is also authorized to charge Deposit Account No. 50-

0805 (Order No. ADAPP135). A duplicate copy of the transmittal is enclosed for this

5   purpose.

Respectfully submitted,
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